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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,055	11/24/2003	Krishna M. Ravi	HES 2002-IP-008094U2	3248

7590 10/20/2006

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EXAMINER

KUGEL, TIMOTHY J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,055

Applicant(s)

RAVI ET AL.

Examiner

Timothy J. Kugel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32, 34-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-59 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: See Continuation Sheet

Continuation of Attachment(s) 6). Other: Copy of PTO-892 and IDSs originally mailed 06-28-2006.

DETAILED ACTION

1. This action supersedes and replaces the prior Office action mailed 28 June 2006.
2. Claims 1-59 are pending as amended on 12 May 2006, claims 60-87 being cancelled. Claim 33 is withdrawn from consideration.

Election/Restrictions

3. Applicant's election without traverse of the claims of Group I directed to a process of using a variable density fluid in a subterranean formation in the reply filed on 12 May 2006 is acknowledged.

Applicant's cancellation of claims 60-87, directed to the nonelected invention has rendered the restriction requirement moot and it is therefore withdrawn.

4. Applicant's election without traverse of the species of air as the internal fluid, coated elastic particles—coated with a hydrophobic coating, specifically a silane coating—in the reply filed on 12 May 2006 is acknowledged.

Claim 33 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species—specifically elastic particles coated with a hydrophilic coating, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12 May 2006.

Information Disclosure Statement

5. The information disclosure statements submitted on 27 September 2004, 28 February 2005 and 30 January 2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.
6. Regarding the references Venezuela Patents 52,882, 52,883, 53,935 and 53,936, only a portion of each of which was provided, the information disclosure statement filed 16 March 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. They have been placed in the application file, but unless the references have been cited by the examiner on form PTO-892, the information referred to therein has not been considered.
7. Regarding the reference French Patent 2 787 441, which was provided in the French language only, the information disclosure statement filed 3 March 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but unless the references have been cited by the

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examiner on form PTO-892, the information referred to therein has not been considered.

8. The abstract to the reference Zhu et al., *Optimized indium tin oxide contact for organic light emitting diode*, Thin Solid Films, 2000, 363(1,2), 314-317 has been included in the file, but does not appear on an Information Disclosure Statement. Unless the reference has been cited by the examiner on form PTO-892, it has not been considered.

Claim Objections

9. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim that depends from a dependent claim should not be separated by any claim that does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Double Patenting

10. The provisional rejection of claims 1 and 29-32 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 16-18 of copending Application No. 10/745,470 made in the previous Office action has been withdrawn as the copending application has been abandoned.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-7, 11-32, 34-38, 40, 41 and 43-59 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication 2004/0171499 (Ravi hereinafter).

Ravi teaches a method of using—including in cementing and drilling (§0009)—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation (§0002) through a well bore (Abstract)—including pumping (§0003)—wherein the fluid comprises a base fluid and a portion of elastic particles (§0011), wherein the base fluid is present at from about 25% to about 150% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts—including mineral oils, synthetic oils and esters as claimed (§0017) and the particles are present in the range of from about 1% to about 200% by weight of the cement, have a specific gravity of from about 0.3 to about 0.99, a compressibility of about $1.5 \times 10^{-3} \text{ psi}^{-1}$ to about $1.5 \times 10^{-9} \text{ psi}^{-1}$, are substantially impermeable to the fluids typically encountered during cementing operations (§0018), can be pre-expanded up to

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about 40 times their original volume before being added to composition with an internal fluid—including the elected internal fluid, air (§0019)—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile (§0020) and can withstand pressures in excess of 21,000 psi without crushing (§0023)—including EXPANCEL particles as exemplified by applicant (§§0019-0021)—coated with hydrophobic silane material (Claims 1 and 16-18).

Since Ravi teaches the same composition as claimed, the variability of the density and the temperature resistance of the particles of the Ravi composition would inherently be the same as claimed.

The applied reference has a common assignee and at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 8-10, 39 and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 3,256,936 (Johnson hereinafter) in view of Ravi.

Johnson teaches a method of drilling and cementing a wellbore comprising drilling a wellbore wherein the wellhead is positioned on the ocean floor (Column 1 Lines 8-13 and 58-61) and the assembly comprises pipe strings extending downward that are identical to pipe strings extending upward (Figure 2 and Column 2 Lines 6-9) and a riser to inject mud (Figure 3 Reference No. 53 and Column 4 Lines 15-20).

Johnson does not disclose expressly injecting a fluid of the composition claimed.

Ravi teaches a method of using—including in cementing and drilling—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore—including pumping—wherein the fluid comprises a base fluid and a portion of elastic particles, wherein the base fluid is present at from about 25% to about 150% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts—including mineral oils, synthetic oils and esters as claimed and the particles are present in the range of from about 1% to about 200% by weight of the cement, have a specific gravity of from about 0.3 to about 0.99, a compressibility of about $1.5 \times 10^{-3} \text{ psi}^{-1}$ to about $1.5 \times 10^{-9} \text{ psi}^{-1}$, are substantially impermeable to the fluids typically encountered during cementing operations, can be pre-expanded up to about 40 times their original volume before being added to composition with an internal fluid—including the elected internal fluid, air—are comprised of a copolymer of styrene and divinylbenzene or styrene and

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acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile and can withstand pressures in excess of 21,000 psi without crushing—including EXPANCEL particles as exemplified by applicant—coated with hydrophobic silane material as detailed above.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fluid composition of Ravi in the method of Johnson. The motivation to do so would have been to improve the elasticity, resiliency and ductility over conventional compositions (Ravi ¶0023).

The applied reference, Ravi, has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2004/0142826	07-2004	Nguyen
US 2005/0006095	01-2005	Justus
US 2005/0019574	01-2005	McCrary

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached 6:00 AM – 4:30 PM Monday - Thursday.

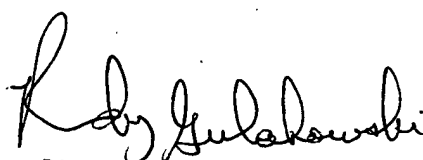
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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